

# THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 32.

BALTIMORE, MD. DECEMBER 6, 1836.

Vol. III

**THIS publication is the successor of the late AMERICAN FARMER.**

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

**American Farmer Establishment.**

BALTIMORE: TUESDAY, DEC. 6, 1836.

## CHANGE OF PROPRIETORSHIP.

The undersigned avail themselves of this occasion to notify the patrons and friends of the *Farmer and Gardener*, that they have bought out all the interest in said publication lately held and owned by Messrs. Sinclair & Moore, and Robert Sinclair, junior, together with all the debts due the establishment from the 1st day of May, 1835, the period at which it was transferred to the said Sinclair & Moore, and R. Sinclair, jr.

All payments will henceforth be made to the undersigned, who take this opportunity to respectfully solicit such of the subscribers to their journal as may be in arrears to forward the respective amounts due them by mail.

The business of the firm will be conducted under the name of *E. P. Roberts and Sands & Neilson*, to whom all communications upon business connected with the establishment will be henceforth addressed.

The editorial department as heretofore will be conducted by Mr. E. P. Roberts.

E. P. ROBERTS,  
SANDS & NEILSON.

## TO THE PATRONS OF THE FARMER & GARDENER.

The subscribers to this journal will perceive by the above annunciation, that the undersigned has become joint proprietor thereof, having in conjunction with Messrs. Sands & Neilson, purchased the entire interest of its late proprietors; and in thus making the change known, the occasion seems a fit one to call upon those of its patrons who may be in arrears to *enclose by mail* the sums which may be respectively due by them, in order that he may be thus enabled to render that justice to the work which its profound importance demands. The science of Agriculture, like all others, is progressive. Every day unfolds some

new light and discloses some fact of magnitude to the business of the husbandman. In every direction, both in Europe and America, men of learning and of science are bending their attention to the culture of the soil, and imparting enhanced interest to the subject by clothing it with those beauties which science and philosophy know so well how to throw around the chosen objects of their pursuits. To enable the undersigned to avail himself of the flood of intelligence, which the European writers are daily shedding upon the noble science of Agriculture, through their numerous periodicals, he designs, and to that end, has made arrangements for procuring from that quarter, such of the leading journals engaged in furthering the cause of husbandry, as will place it in his power to lay before his readers every thing that may be passing in Europe calculated to illumine the agricultural mind, and advance the prosperity and welfare of the tillers of the earth. But to effect this desirable object—an object near and dear to every sympathy of his heart:—for he is proud to say, he became connected with this journal from motives and feelings of devotion to the cause of agriculture—it is indispensable that the patrons of the paper should, in a spirit of justice and reciprocity second his views. To effectuate the object he has so much at heart, will require an outlay of considerable funds; but as the promotion of the agriculture of his country is, in his estimation, infinitely above all compromise with merely personal considerations, he trusts he is incapable of pausing to make a pecuniary calculation, when interests of such deep concern are at stake.

It is now eighteen months since the undersigned took charge of the editorial department of this paper, and while it does not become him to speak of the evidences of favor which his labors have received from the public, it may not be indelicate to say, that he brought to the discharge of the duties of his station, a zeal that never flags, and a devotion bordering on infatuation. And to that zeal and devotion more than personal qualifications it may be, that he is to ascribe the solid marks of friendship which it has been his good fortune to receive from subscribers in Virginia, North Carolina, South Carolina,

Georgia, Alabama and other states. Many gentlemen residing in those states having, unsolicited by him, generously volunteered for that purpose and procured him subscribers. Such instances of the kind feelings of the patrons of the paper, did not fail to beget in his mind a correspondent emotion of gratitude, and to sweeten the toils of his avocation.

The undersigned mentions these facts, so honorable to the gentlemen to whom he is indebted for such disinterestedness, and so grateful to his own sense of gratitude, because he desires in a spirit which he cherishes as holy, to manifest the profound degree of sensibility with which he is inspired, by making an offering to the cause of Agriculture. On the commencement of the next volume, the proprietors propose reducing the subscription price agreeably to the following terms. All subscriptions which are paid in advance, or within one month from the commencement of the subscription year, will be *Two dollars and a half*:—all which remain unpaid beyond that period, will be charged at the rate of *Three dollars* per year.

The object of the undersigned, and his co-partners, in making this reduction, is, to place the work within the reach of every farmer and planter, believing that nothing so tends to stimulate the exertions of those engaged in it, as reading exclusively devoted to the practice and science of agriculture. May the undersigned then not make an appeal to each of his readers, who feel an interest in promoting the good cause, to procure from among their neighbors and friends at least one new subscriber for this work. If the undersigned thought that mercenary motives influenced him in proffering this request, or that it would be so construed—if he could believe it would even be considered as indelicate, he prays his readers to believe him that it never would have been made. But when he has so many flattering proofs of the facility with which several of his subscribers have procured additional names for him—when he reflects that those favors were unasked—when he considers that his object now is, by obtaining additional patronage, to enable him to so reduce the price of

his paper, as to make it an inducement for farmers in every circumstance of life to take it—and when he is vain enough to hope that if his journal is extensively diffused, its benefits will be equally so, he cannot doubt that his present request will be met in the proper spirit, and that his exertions to promote the great cause of husbandry will be sustained.

The undersigned will make one other request of his Agricultural readers, and he feels emboldened to do so from a conscientious belief that it is required by the best interests of those to whom it is addressed. When he took charge of the editorial department of this paper, he had no other qualifications for the discharge of its duties than a course of Agricultural reading, which for many years had occupied his every leisure hour, a passionate devotion to the science and cause of husbandry, and a desire to be serviceable to his countrymen. And although he felt that his familiarity with the general principles of the art, would be serviceable in enabling him to meet intelligently the demands which his new station would make upon him—although he looked forward to the impulses by which he would be guided to render the arduous task he had assumed at least a source of pleasure to himself,—he entered upon the discharge of his duties with feelings of embarrassment, lest his labors might not prove as satisfactory and profitable to the public as he could wish. Since then, however, he has become engaged, on a small scale, in the practical duties of a husbandman, and while he has found immense benefit from the previous course of his readings, he finds that he has much yet to learn before he shall feel himself authorized to aspire to the title of a good farmer. Every day's experience but serves to convince him that it is to men of long practical experience, that the agriculturist should look for those unerring lights and broad landmarks so necessary to enable him to cultivate the soil with economy and profit. His mind having honestly come to this conviction, he would act the part of a dishonest sentinel over the interests of those with whom he is now associated as a very humble coadjutor, did he not ask of those of his agricultural patrons, who are practical men, to submit through the columns of the *Farmer and Gardener*, the results of their experience and practice. However delightful the treat may be to the philosophical mind to dwell upon the emanations from the minds of men conversant with science as connected with agriculture—and he admits they are intensely interesting—still there is another department that should be filled to render a work on Husbandry complete. The undersigned feels

that he need not say that he alludes to communications by practical men engaged in the culture of the earth. With farmers and planters he knows that there is a repugnance entertained, to appearing before the public in print: and while he fully appreciates the delicacy of the sentiment which operates upon their minds, he believes that the cause should, of itself, be competent to urge every man to cast aside all aversions of the kind alluded to, and generously throw his mite into the common stock of knowledge. There is no observant farmer who may not find something, in the course of the year to develop of importance to his brethren, and why then should he withhold it? There is no justifiable reason why he should; but on the contrary, every consideration of interest, utility and public good; conspire to induce him not to conceal his light under a bushel. If it should be urged, that the business of farming do not qualify those engaged in it for writing, the undersigned would remark, that he has derived more information in an hour's conversation from a friend who follows the plough, than he could have derived from a day's reading, and that upon one occasion, he prevailed upon him to overcome his unwillingness to commit his thoughts to paper, and almost in the very words in which he had communicated his views orally, he produced one of the very ablest communications upon grasses that the undersigned ever read. This did not surprise him, because the duties of the farmer are calculated to call into action all the energies of mind as well as of body—it is emphatically a life of thought as well as care, and it may be asked, who is so well calculated to give a correct description of the *modus operandi*, as he who is familiar with the intricacies and details of farming? Such being the impressions and views of the undersigned, he again reiterates his request, that his subscribers will favor him with communications upon all subjects connected with the culture of the productions of the earth, and the improvement of the soil, and begs leave to remain the public's

Obedient servant,

EDWD. P. ROBERTS.

Cochran's many chambered rifle has recently been submitted to a fair and distinct trial at the U. S. Arsenal at Washington, under the supervision of Capt. Ramsay and Lieut. Scott. A correspondent of the *Intelligencer* gathers the following facts from the report of these gentlemen on the subject:

"The rifle, it appears, was fired 1,008 times, and was in the same order at the termination as at the commencement of the firing. In order to

test the influence of rain and wet from other causes, water was put into the chambers, and left there for an hour and ten minutes; the rifle was then discharged, and with the same ease and effect as previously. The cylinder in this rifle thus contained nine chambers; and in a comparative trial instituted between it and Hall's carbine, both pieces having been loaded, the whole nine discharges were made from the rifle before a second could be made from the carbine.

During the whole trial not a single cap missed fire; and at the distance of 150 yards, with 10 grains of powder, the ball perforated an inch pine board, and was flattened against a brick wall behind it.

Some apprehensions were entertained that, from the contiguity of the charges, accidental ignition might be produced. To prove the entire freedom of his rifle from this danger, Mr. Cochran placed loose powder in the chambers, over the balls, and around the caps, and, so circumstanced, it was discharged safely as before.

Capt. Ramsay observes, that with the closest scrutiny he could not discover any objection to Mr. Cochran's invention; and Lieut. Scott says, that for simplicity it surpasses any thing of the kind he has ever seen, and that its quality as a fire arm can be summed up in three words, "it is PERFECT."

[From the Northampton Courier.]

#### DEFOLIATION CONFIRMED.

During the present year, experiments have been made in feeding silk worms, and gathering the foliage of the Chinese Mulberry, several times, during the season of feeding, and this without injury to the plant, but evidently to the improvement and augmentation of foliage. That this practice is adopted in China, is abundantly evident from a volume of splendid paintings, just received through the politeness of a gentleman of intelligence who has for years been conversant with China. These elegant paintings, illustrating the whole process of culture, from the preparation of the ground to the silk in the skein, may be seen at my office in the Court House. Some further description of these paintings may be made at our leisure. It appears that the same method is adopted in China, which is the result of experience, with us. That while feeding, and depriving the plants of foliage, the topmost shoots must be carefully preserved, but when feeding is over, then to nip off the leading shoots, to promote the formation of wood, and at the close of the season, head down the plant, the stump of which, in our latitude, to be slightly covered with earth during winter. These several operations are illustrated in the above paintings, and the leaf of the mulberry decidedly resembles the leaf of the Canton mulberry, so called, being the product of seed which I imported in 1834.

Within a few days, a small lot of trees, and some more seed have been received through the agency of gentlemen of great respectability. The trees are not for sale, but some of the seed would be parted with to accommodate the friends of mulberry culture. Although it comes with high recommendations, yet as seed is sometimes injured in transportation by water, should the seed not vegetate, or prove a total failure, four-fifths of the purchase money will be restored to the purchaser, when called for.

D. S.



MOWING



MACHINE,

OR  
GRASS AND GRAIN CUTTER.

Capt. Alex. M. Wilson, of Rhinebeck, Dutchess County, New York, who has recently invented a machine with the above title, waited upon us some days since to invite us to inspect the model, which he was taking on to Washington, and we regret that circumstances beyond our control put it out of our power to avail ourselves of his polite invitation, as from the high commendations it has met with from many of the most distinguished farmers of the state of New York, we are not only satisfied that it is calculated to be of eminent service to those of the agricultural world whose localities are favorable to its operation, but we feel assured from an inspection of the drawing that we lost a chance of viewing a most simple and therefore efficient labor-saving machine.

Among the gentlemen who were present and witnessed the operation of Capt. Wilson's Machine during the last summer, and who bear the strongest testimony in its favor, we observe the names of S. Blydenburgh, of Bethlehem, N. Y. Dr. Samuel Shaw, Thomas Dunn, Esq. Col. Erasmus Chapin, and George Hanford, of Albany, Henry Vandenburg, of Shodack, Rev. E. P. Stimson, of do., James Wylie, of Easton, New York, G. Van Rensselaer and James Jordon, Esqs. of Greenbush, the Hon. Peter R. Livingston, and several other distinguished individuals. These persons testified that they witnessed the operation of the machine, and that notwithstanding the ground was very uneven and the grass in bad order, that the performance was all that could reasonably be expected; that it mowed by the power of two horses as fast as the horses could walk, leaving the work in as good order as is usually left by good mowers, and would cut about an acre an hour; that as the machine possesses the power to keep itself completely sharp, no time is lost in sharpening it, and that as its construction

is simple, they see no reason to suppose it more liable to get out of order than any other farming utensil.

By aid of the drawing, which we have caused to be prefixed to this notice for the accommodation of our readers, and the description which follows, they will be able to comprehend the principles of the Machine. The description we borrow from our old co-laborer, S. Blydenburgh, Esq. editor of that excellent work, the Silk Worm, than whom few gentlemen are better qualified to speak upon matters connected with machinery.—He says:—

"The machine consists of a carriage on two wheels, propelled by one or two horses, oxen or other beasts of burden, travelling in the rear and pushing it forward. In the front, at the bottom, is a horizontal wheel upon an upright shaft, which shaft and wheel receive a rotary motion, communicated by gear from the main axle, which revolves with its wheels, as the machine goes forward. The diameter of this horizontal wheel, with the addition of the knives projecting from its edge, measures the width of the swath, which is cut with the knives as the wheel goes forward, revolving rapidly and lying close to the ground.—The apparatus which sustains the cutting wheel is so constructed as to accommodate its height to any inequalities in the ground, and to give it any inclination required. The knives are sharpened by their own operation, without stopping the machine. There is also attached to the upper side of the cutting wheel, a rim which gathers the grass as it is cut, and lays it in a swath more regularly than it can be laid by the scythe."

In conversing with Captain Wilson, we learned from him that he intends his machine particularly for champaign, level fields, for intervals, lands, and prairies; that although it would not efficiently on grounds not too much broken, it never entered into his calculation that it would be adapted to such places.

On the eastern shore of this State, the lower part of Virginia, in the meadows of Delaware,

New Jersey, and Pennsylvania, and in the extensive bottoms and Prairies of the West, we believe that this machine would prove of incalculable value, in reducing the enormous expense attending the employment of manual labor in those regions.

We found Capt. Wilson not only a highly intelligent gentleman, but to possess all that frankness for which the American tars are so distinguished. While he set forth what he considered the proper merits of his mowing machine, he did not claim for it the possession of powers so extraordinary as to tax credulity. He believes that with either oxen or horses as the motive power, it will do the work of ten men. If it can do this, it may, indeed, be truly called a labor-saving machine, and as every thing which tends to overcome the expense attendant upon farming operations serves to increase the value of agricultural productions, we believe that his invention will find favor with the intelligent of his present calling.—His residence is at Rhinebeck, New York, where those disposed to purchase rights for states, counties, or sections of country, may communicate with him personally, or by letter, *post paid*.

## COMMUNICATED.

## MORUS MULTICAULIS.

To the editor of the Farmer and Gardener:

I have had so many applications for information how to prevent the *Morus Multicaulis* from injury by winter weather, that I have concluded to give you my ideas on the subject for publication in the Farmer & Gardener.

If the *Morus Multicaulis* is planted on *high dry ground*, it will never suffer from the frost of winter. It is only when cultivated on low, rich, and often rather wet soil, that the winter ever injures them. I never lost a tree nor a bud; but I always cultivated them on high and rather poor soil, and raise the young trees from cuttings in a hot-bed, in the manner described in my letter in your Silk Manual, to give them an early start that they may ripen their wood perfectly before the severe weather of the Fall sets in. To preserve the *Morus Multicaulis* trees from frost you may either wrap them well in straw as they stand in the ground, or take them up, and bury their roots in the ground of a cellar, or under a shed open to the South, throwing straw or bass-matting over the tops, and set them out again in the Spring on *high ground*, where they will want no other protection in future. Cuttings may be taken off in the fall and buried in the ground a foot deep, and they will keep perfectly fresh to plant in the Spring, or they may be wrapped in green living moss, packed in a box close, and put in a cellar. The branches that grew this last season are the proper ones for cuttings.

Yours, &c., &c.,

GIDEON B. SMITH.

[From the Cultivator.]

## LEGISLATIVE ENCOURAGEMENT TO AGRICULTURE.

We think it pretty well settled, that the law for distributing, among the several states, the surplus moneys which shall remain in the national treasury on the first day of next month, will not be repealed; and that this state will receive, as her distributive share of the fund, if her legislature do not reject the proffered boon, more than SIX MILLIONS of dollars. The suggestion that this money is to be received in the nature of a loan, to be returned again to the national treasury, we deem fallacious. It is an excess, above the reasonable wants of the government, and if not distributed, it is apprehended, will be uselessly expended. If expended by the states, in education, internal improvements and the encouragement of agriculture, its benefits will be palpably abiding. We shall at all times be obliged to contribute our share, in one way or other, of the expenses of the general government, even if we decline to take the six millions—and we shall have to contribute no more than our share if we do take them. Hence it admits of no doubt that we ought to take the money. But were it even a loan, to be refunded, the money will be expended, and will have to be paid, directly or indirectly, by the consuming land-holding interest; and it is therefore right, from this consideration alone, that a portion should go to increase the value and products of the land.

It is important, therefore, to every class of our citizens, that in the application of these moneys, by our legislature, some permanent provision should be made to encourage and improve the labors of agriculture. The present time is full of admonition, which cannot be misapprehended, that the substantial interests of the state are mainly dependent upon her agriculture—that this is in fact the commander, or balance wheel, which controls and regulates all the minor machinery of society. The present high price of every article of farm produce, and our humiliating dependence upon foreign nations for bread stuffs, to avert the evils of famine, should surely teach us the necessity of giving to that great branch of national industry, which feeds and enriches us all, the substantial aid which shall stimulate its exertions, instruct and aid its labors, and multiply its products. Every dollar judiciously applied to this object, will be like seed deposited in good soil—it will yield its fifty fold and its hundred fold, and the increase will alike add to the wealth and comforts of all—to the rich and the poor—to the merchant, mechanic, manufacturer, and the farmer. It will benefit all, because all will participate in the general prosperity, which nothing so much promotes as a high state of agricultural improvement.

We will venture to suggest a proposition for public consideration; and we would impress it upon the farming community, and upon all others who may approve of this suggestion, to take immediate steps to memorialize the legislature, and to instruct their representatives, in the matter. The proposition is this, that the legislature be asked to appropriate two hundred thousand dollars, or ONE THIRTIETH PART, of the sum which we are expected to receive in January, for

the improvement of agriculture; and that a portion of this sum, say one half or more, be specially set apart to sustain, for a term of years, county agricultural societies.

We will not now stop to prove the utility of agricultural societies. It would be supererogation. They have won for themselves a reputation for usefulness. They have produced the greatest benefits, to the moral habits as well as to the pecuniary interests, of all communities where they have been well conducted. For proof of this, we refer to Great Britain, to France, to our sister states and our own state. But they want here, what they receive elsewhere, to develop all their usefulness—the aid and patronage of government. Massachusetts has adopted a liberal policy in these matters, and experienced its wisdom; she gives to her county societies a sum equal to what the inhabitants of each respectively raise for this purpose; and she finds that these gratuities, after fertilizing her soil, and improving the moral condition of her population, flow back to her treasury again in increased volume.

Our remarks upon this subject apply to other states as well as to New-York. There never was so auspicious an opportunity, and such may never again occur, for the farmers to claim from the legislative bodies of our country, that aid, which the interests of agriculture, and of the nation, demand, as the present. They have hitherto obtained little or no direct aid, because they have not asked for it. If the claim is made promptly, and with spirit and unanimity, it will not, it cannot be refused. No time should be lost, therefore; and if our brother journalists would prompt their readers on the subject, we should hope for the best results.

It was resolved, in the last State Agricultural Convention, that another convention should be held at the Capitol, in Albany, on the first Thursday in February next, at 4 o'clock, P. M. This will afford a favorable opportunity, which we trust will not be lost, of concentrating the public feeling upon this subject; and we hope the importance of the subject will induce a full meeting on that occasion.

## APPLE MOLASSES.

BY TRY AND SEE.

Brother farmers, you will listen to me a few minutes, while I tell you how to provide yourself with a first rate article, and one of prime necessity. You are probably in something of a haste, though I hope you will have your potatoes dug and safe in your cellar, for there are many things a farmer has to do to be ready for winter. It is just about election time also, and every farmer should manage so as to be able to drop in at the poll and give his vote for a good and true; but do not do, as many will, make the privilege of voting, an excuse for spending a whole day at the tavern, imbibing "wet damnation."

If you are a married man, as I hope you are, for no other one has a consistent claim to the character of a good citizen, you know, or if you do not, your wife does, that it costs no trifling sum to provide sweetening for the family, while there is no possibility of living without it; and experience has fully shown me, that for many of the purposes of domestic cookery, apple molasses is

far preferable to West India, while it is at the same time much cheaper.

I make little cider; my apples are worth more fed to my hogs than for cider; but I make a practice of selecting my best sweet apples, those that furnish the richest, heaviest liquor, and make a cheese from them, using the cider thus obtained for making apple or quince preserves, boiling down for molasses, and keeping two or three barrels for drink, or ultimate conversion into vinegar. When new from the press, and before fermentation commences, that which I intend for boiling is brought to the house, and boiled in brass, to the proper consistence; taking care not to burn it, as that gives the molasses a disagreeable flavour, and taking off all the scum that rises during the process. The quantity to be boiled, or the number of barrels of cider required to make one of molasses, will depend greatly on the kind of apples used, and the richness of the new liquor. Four, or four and a half are generally sufficient, but when care is not used in making the selection of apples, five barrels may be necessary, but let it take more or less, enough must be used to make the molasses, when cold, as thick as the best West India. When boiled sufficiently, it should be turned into vessels to cool, and from them transferred to a new sweet barrel, put into a cool cellar, where it will keep without trouble, and be ready for use at all times.

Molasses made in this way will be pure, and possess a vinous or rather brandied flavour, which makes it far superior to the West India for mince, apple, or tart pies, though where the apples used are very sour, a small quantity of imported molasses may be advantageously used. It is also excellent for making beer in the summer, giving it a briskness and flavour which common molasses will not; in short, there are but few uses to which molasses is applied in which it will not be found equal or superior to the other. Its cheapness should also be a decided recommendation with the farmer. The cider from which I manufacture my molasses is worth at the press a dollar a barrel, and it is worth a dollar to reduce it to molasses, thus making the cost of a barrel of molasses, allowing four and a half barrels of cider to be used, \$5.50. The price of common molasses will average about 50 cents a gallon, or sixteen dollars a barrel, making a saving to the farmer in the use of apple molasses of about ten dollars per barrel.

TRY AND SEE.

## DEVELOPMENT OF VEGETABLES.

Farther proofs of design may be collected from an examination into the modes in which these structures, so admirably adapted to their objects, have been gradually formed. Confining our attention to vascular plants, in which the process of development has been studied with the greatest attention and success, we find that nature has pursued two different plans in conducting their growth. In the greater number, the successive additions to the substance of the stem are made on the exterior side of the parts from which they proceed. This mode is adopted in what are called *Exogenous plants*. In others, the growth is the result of additions made internally; a plan which is followed in all *Endogenous plants*. The oak, the elm, the beech, the pine, and all the trees



of the northern regions, belong to the first of these divisions. The palm tribe, such as the date, the cocoa nut tree, and indeed a large proportion of the trees of tropical climates, together with the sugar cane, the bamboo, and all graminaceous and lilaceous plants, belong to the latter. We shall first inquire into the endogenous mode of growth, as being the simplest of these two kinds of vegetable development.

A palm tree may be taken as an example as the mode of growth in endogenous plants. The stem of this tree is usually perfectly cylindrical, attains a great height, and bears on its summit a tuft of leaves. It is composed of an extremely dense external cylindric layer of wood; but the texture of the interior becomes gradually softer and more porous as it comes nearer to the centre; though with regard to its essential character it appears to be uniform in every part, having neither medullary rays, nor true outward bark, nor any central pith; in all of which respects it differs totally from the ordinary exogenous trees.

The first stage of its growth consists in the appearance of a circle of leaves, which shoot upwards from the neck of the plant, and attain, during the first year, a certain size. The following year, another circle of leaves arises; but they grow from the interior of the former circle, which they force outwards as their vegetation advances, and as ligneous matter is deposited within them. Thus, each succeeding year brings with it a fresh crop of leaves, intermixed with ligneous or woody matter, which leaves, exert an outward pressure, and stretch out the preceding layers that enclose them; until the latter, acquiring greater density, no longer admit of farther distention, and remain permanently fixed. This happens first to the outermost layer, which is the oldest; then each succeeding layer becomes consolidated in its turn. As soon as the outer layer has become too hard to yield to the pressure from within, the growth of the inner layers is immediately directed upwards; so that they each rise in succession by distinct stages, always proceeding from the interior; a mode of development which has been compared by De Candolle, to the drawing out of the sliding tubes of a telescope. The whole stem, whatever height it may attain, never increases its diameter after its outward layer has been consolidated. A circle of leaves annually sprouts from the margin of wood; these, when they fall off in autumn, leave on the stem certain traces of their former existence, consisting of a circular impression round the stem. The age of the tree may accordingly be estimated by the number of these circles, or knots, which appear along its stem. The successive knots which appear in the stems of other endogenous plants, as may be observed in growing corn, and also in various grasses, may be traced to a similar origin.

The structure of exogenous trees is more complicated: for, when fully grown, they are composed of two principal parts, the *wood* and the *bark*. The woody portion exhibits a farther division into *pith*, which occupies the centre, and consists of larger vesicles, not cohering very closely, but forming a light and spongy texture, readily permeable to liquids and to air; the *harder wood*, which surrounds the pith, in concentric rings, or layers; and the softer wood, or *albumen*, which is also disposed in concentric layers on the outside

of the former. Each of these concentric layers of wood and albumen may be farther distinguished into an inner and outer portion; the former being of less density than the latter, and consisting of a lighter cellular tissue; while the outer portion is composed of the denser woody fibres, resulting from the union of numerous vessels with a cellular tissue, termed the *cellular envelope*. Of this envelope the exterior surface is called the *epidermis*.

All these concentric zones may be readily distinguished in a horizontal section of the stem; which also presents a number of lines called *medullary rays*, radiating from the pith to the circumference. They are composed chiefly of large cells, extending transversely, or in the direction of the diameter of the tree, and composing by their union continuous vertical planes the whole length of the trunk.

Every vegetable stem, and also every branch which arises from it, is developed from a germ, or bud, which is originally of inconceivable minuteness, and totally imperceptible by any optical means of which we have the command. As soon as it becomes visible, and its structure can be distinguished, it is found to contain within itself the parts which are to arise from it, in miniature, and folded up in the smallest possible compass. The portion destined to form the stem is gradually expanded both in breadth and height, but principally the latter; so that it rises as it grows, during a certain period, until the fibres acquire the solidity and strength necessary not only for their own support, but also for sustaining the parts which are to be farther added. In trees this process generally occupies one whole season; during which the growth of the first layer of wood, with its central pith, and its covering of a layer of bark, is free and unrestrained. On the second year, a fresh impulse being given to vegetation, a new growth commences from the upper end of the original stem, as if it were the development of a new bud; and at the same time a layer of cellular tissue is formed by the deposition of new materials on the outside of the former wood, and between it and the bark. This is followed by a second layer of wood, enveloping the new or cellular tissue.

The effect of this new growth is to compress the new layer of wood which had been formed during the first year, and to impede its further extension in breadth. But as its fibres, consisting of vessels and cells, are not yet consolidated, and admit of still greater expansion as long as they are supplied with nourishment, their growth, which is restrained laterally, is now directed upwards, and there is no farther enlargement of their diameter. From the same cause, the pith cannot increase in size; and is ever found to diminish by the pressure of the surrounding wood. Thus, the vertical elongation of the entire stem continues during the whole of the second year, and the trunk becomes sufficiently strengthened by the addition of the second layer on its outside to bear this increase of its height.

While this process is going on in the wood, corresponding changes take place in the bark, and a new layer is added on its inner surface, or that which is contiguous to the wood. This layer constitutes the *liber*. All these new depositions must of course tend to stretch the outer portions of

the bark, which had been first formed, and which yield to this pressure, to a certain extent; but, becoming themselves consolidated by the effects of the same pressure, they acquire increasing rigidity; and, the same cause continuing to operate, they at length give way in various places, forming those deep cracks, which are observable in the bark of old trees, and which give so rugged an appearance to their surface. The culture has, long before this, peeled off, and has been succeeded by the consolidated layers of corticle envelop which form the *epidermis*. But the epidermis, which is continually splitting by the expansion of the part it encloses, itself soon decays, and is constantly succeeded by fresh layers, produced by the same process of consolidation in the subjacent corticle substance.

During the third and each succeeding year, the same process is repeated: new layers of cellular texture and of woody fibres are deposited around those of the preceding year's growth, and a new internal coating is given to the liber of the bark. The compressing power continues to be exerted on the internal layers of wood, directing their growth vertically, while they are capable of elongation, and can be supplied with nourishment. In time, however, by continual pressure, and accumulating depositions of solid matter, the vessels and the cells become less and less pervious to fluids; till, at length, all farther dilation is prevented. But the tree still continues to enlarge its trunk by the annual accessions of vigorous and expansible albumen, and to take its station among its kindred inhabitants of the forest; till arriving at maturity, its majestic form towers above all the junior or less vigorous trees.

The development of each branch takes place in the same manner and by the same kind of process, as that of the trunk. The buds from which they originate, spring from the angle formed by the stalk which supports a leaf, and which is termed by botanists the *axilla* of that leaf. A law of symmetry is established by nature in the development of all the parts of plants. The leaves, in particular, are frequently observed to arise in a circle, or symmetrically around the parent stem; forming what is called a *whorl*, or, in botanical language, a *verticillated* arrangement. In other cases they are found to have their origins at equal intervals of a spiral line, which may be conceived to be drawn along the stem, or the branch from which they grow. When these intervals correspond to the semi-circumference of the stem, the leaves alternate with one another on the opposite sides.

The stems of most plants, even those that are perfectly erect, exhibit a tendency to a spiral growth.—This is observable in the fibres of the wood of the pine, however straight may be the direction of the whole trunk. This tendency is shown even in the epidermis of the cherry tree, for it may be stripped off with more facility in a spiral direction than any other. The primitive direction of the leaves of endogenous plants is a spiral one. It is particularly marked also in the stems of creepers and of parasitic plants, which are generally twisted throughout their whole length; a disposition evidently conducive to the purpose of their formation, namely, that of laying hold of the objects with which they come in contact, and of twining round them in search

both of nourishment and support. The twisted stems of the hop and of ivy show this structure in a remarkable degree, and the purpose for which this tendency was given cannot be mistaken.—*Rogers's Bridgewater Treatise.*

The subjoined article, whose heading would lead one to think that it related altogether to paintings, is a treatise on *Mulberries*, and without according in all the views of the writer, we give it to the public, reserving to ourself the right of speaking to it hereafter.

From the Northampton Courier.

### ELEGANT CHINESE PAINTINGS.

A gentleman who has long been engaged in the Canton trade, often visited that city, and had opportunities to become acquainted with the manners and habits of Chinese, has lately visited Northampton to become acquainted with the state of the silk culture here, from whose scrutinizing observations made in China, much valuable information has been obtained. The same gentleman loaned the subscriber a volume of splendid Chinese Paintings, which confirms our practice and culture of the Chinese mulberry as correct and proper. These paintings represent the men, women and children in their national costume, at work—commencing with gathering the mulberry seed, cleaning the same, and then preparing the ground,—sowing the seed, transplanting the young seedlings, gathering the foliage, feeding the worms, heading or cutting down the plants to 2 or 4 inches above the ground, as we do, and every process of their management, to making up of the silk into skeins, as we import it, and the further process of winding the silk upon spools.

There are 29 plates, illustrating the different processes.—The out door men laborers are dressed in plain loose frocks and trousers, descending to the knees; some of the men with bare feet and legs; others with sandals and wooden shoes, adapted to their respective work of getting the plants in forwardness for feeding the worms. The women, boys and girls are employed in gathering leaves, feeding the worms, reeling silk, &c. Some of the ladies have elegant loose dresses, of various brilliant colors, ornamented with wide embroidery around the neck and sleeves. The upper dress is loose, of gay colors, the sleeves large, and extend a little above the elbow; and all the females are dressed in *pantalettes* of various colors, each in contact with the upper dress—the countenance fair, delicate and intelligent, eyes downcast; most of the females have small feet and gay sandals; the hair neatly dressed, ornamented, and all wear bracelets above the wrists. As the original plates can be seen by only a few, it may be desirable to hear some description of each print, for the gratification of those who take some interest in the culture of silk.

The plates make it evident, that although the Chinese sow the mulberry seed *broad cast* as we do small grain, yet they do not let it long grow in that state, nor do they cut it off (as we do grass) for feeding worms, but they transplant it into settings or hills, like our Indian corn, and

that it does not grow more than three or four feet in height, and is cut down every year to keep it in a shrubby state. Experience has convinced us that this procedure of taking off the tops to 2 to 4 or even 6 inches above the root, every autumn, and covering the stump with earth, is the best way to secure the Chinese mulberry against the severity of winter, and is also a sure method to multiply the number of trees and increase the quantity of foliage.

Some people have thought that the Chinese mulberry seed grew on trees of some height, like white mulberry (and on this account have been desirous of procuring large trees); so far as we have had experience this is not the fact with the Canton mulberry, although it may be true of Manilla and other varieties.

The first plate represents the seed growing very near the ground, like the Canton mulberry, from the seed of which I imported and sowed in 1834. In 1835, one of the seedling trees being laid down, the layer sprouts produced full size mulberries, too late, however, for ripening. The same root this year, 1836, grew branches which were again laid down, and the layer sprouts, when 4 or 5 inches high, again had mulberries formed, which ripened in season for sowing, from which seed I have two small trees carefully preserved, to ascertain its character. After the seed had been gathered, the same layer sprouts again, with others, had plump mulberries formed, but were destroyed by birds or fowls. Both crops were formed only a little above the root or foot of the layer tree, and some of them rested on the ground. I have neither seen or heard of any other of the Canton plants producing seed; but what has already occurred here, in the formation and product of seed, together with the representation and the gathering of the seed and the description of the leaf in the Chinese paintings, confirms the opinion, that the *Canton Mulberry*, so called here, is the same as used in China for feeding worms. Experiments have been made this year in feeding worms with the Black, White, Manilla, and the Canton Multicaulis, and the worms evidently preferred the Canton to either of the others. If any one is possessed of the evidence that the Manilla Multicaulis is ever used in China for feeding worms, he is requested to make it known. The first notice we have of it is, that it was cultivated at Manilla as a *tree of ornament*. After being introduced into France, it was found that the silk worm would feed upon the Manilla, as they had done upon the white or black mulberry, in Europe or America. Last year a Manilla multicaulis of 6 or 7 feet in height produced a few seed, which grew several feet from the ground. The seed was planted and two or three of them vegetated and were preserved through the winter, and set out in spring 1836, and grew about 2½ feet. The leaves were in shape and size very different from the original tree, and the leaves not more than one quarter as large as the leaves of the parent stock. It may be noted, that a number of old white mulberry trees which have annually borne seed twenty or thirty years, grew within about forty rods of the Manilla multicaulis; the Multicaulis was exposed last winter on the southerly side of a building, and this year the dead tops have

been taken off, but has not produced any seed, or even borne a blossom. D. STEBBINS.

### BET CULTURE AND BET ROOT SUGAR.

By the following article, our readers will find that the good people of Massachusetts are about entering into the culture of the sugar beet, and its manufacture into sugar, with a degree of spirit that would seem to promise success to the enterprise.

[From the Northampton Massachusetts Courier.]

### BET ROOT SUGAR.

A large meeting of the farmers and others interested in the cultivation of Beets for sugar, was held in the Town Hall in this town on Friday afternoon. Mr. Inard, the French Vice Consul in Boston, was present by invitation from the Committee, and favored the meeting with many valuable facts and statements, such as had fallen under his own eye in France. Mr. Inard was one of the first engaged in the manufacture of sugar in that kingdom, under the immediate auspices of Napoleon, and hence his observations carry with them more than an ordinary share of weight and importance. He expressed his opinion to the meeting, that both the soil, climate, natural aptitude of the people, cheapness of the fuel, and various other natural advantages, pointed out this country as precisely the region for the successful growth of the Beet and the manufacture of sugar.

Many interesting facts we have gathered from statements made by him and from other intelligent sources. The Beet is the White or Silesian Beet, differing in size and the quantity of saccharine matter from the ordinary species. It should be sown during April, in drills, of about eight pounds to the acre. They are usually fit for use in September and October, and the process of making them into sugar, happily may be deferred until the season when the urgent farming operations are over. An ordinary yield, is about 40,000 pounds of beet per acre, which will make 2400 lbs. sugar, at an expense of 6 cents per lb. After the juice is extracted, the pumice is highly valuable for cattle, containing so much nutritious matter, and broken up as it is, ready for mastication. It is easily preserved for months in cakes, and is considered a most profitable species of fodder, cattle and sheep eating it with the greatest avidity.

After the beets are ripe, they are washed or scraped, and then the process of crushing or rasping may proceed. The rasp, by which the beet is cut up, is a wooden cylinder, set with steel saws half an inch apart, and when it is in operation, can crush into pulp, ninety pounds of root in one minute of time. A steam-engine of ten horse power can crush 40,000 pounds per day. The pulp must be submitted to the press very soon after, as fermentation follows the crushing immediately. The presses used in France are various, hydraulic, steam, &c., but when the beet is once reduced to pulp, we see no reason why an ordinary cider press, or one of similar construction, does not possess every possible advantage needed for obtaining the juice. The process for reducing the sirop to sugar need not be intricate



or expensive. It is neither so in France, and the ease with which the sap of the maple tree is made into sugar here, shows that a similar, but more methodical plan, is all that is needed in New England, for its successful manufacture. The process of refining and clarifying the nicer qualities by steam or other means, is familiar in sugar-houses in this country and can easily be adapted to the growth of the article in our own land.

It is most apparent from all that can be learned touching the manufacture of sugar from beets, that our own country furnishes every possible advantage to be found in France. Labor is more expensive, it is true, but fuel, an important item in the refining process, is sensibly diminished, about a fair offset for labor. And the versatility and the inventive genius here would easily simplify the crushing, pressing and other processes for reducing the juice into molasses or sugar. The rich, and even beautiful sugar, which is annually made in our towns in the interior, with the most simple apparatus, and with very limited knowledge of the chemical agencies which are all the while in operation, confirm us in the belief, if the business is once began here, it ultimately will be one of the most extensive domestic products of New England. We trust a company, with the necessary capital, will be organized in Northampton, and the growth of the beet and the manufacture of the Sugar, another season commenced. An establishment once in operation, our farmers could grow the beet and supply the manufactory with the raw material, without interfering essentially with their other crop, and at the same time, be supplying themselves with an article of consumption for their cattle, the real utility and extent, as yet, they have but a very imperfect conception of. Agriculture in New England has no right any longer to remain stationary, a subject which we shall again early refer to.

A BEET SUGAR COMPANY is now in process of formation in this town. Some of our most intelligent and energetic farmers and active capitalists have got hold of it and we feel great confidence it will go ahead. Mr. Isnard's visit here has inspired great zeal in the enterprise, and a few gentlemen have already engaged his services both as an agent abroad and also to superintend the business in Northampton. He will proceed to France in a few days, and obtain all the information to be had there, in addition to that already in his possession, and return early in the spring. In the meanwhile, an act of incorporation will be obtained, with a capital of \$50,000 or a \$100,000, and the society organized, preparatory to Mr. Isnard's return, so that operations will not necessarily be obstructed by want of primary preparations.

It is thought by many, that the expense of sending an agent to France is needless, since the publication of Mr. Pedder's Report, who was sent out by the Philadelphia Beet Society. But those who are about to engage in the business here and wish to conduct it with success and enlightened zeal, think otherwise. Mr. Isnard was the first who began the manufacture of Sugar in France under Buonaparte, and he has already passed through the most hazardous, or experimental part of the business, some years since.

By learning more of the details of the business and the improvements which have been introduced during the years he has been absent from France, it is fair to presume that he will be able to anticipate all obstacles, in the business, and carry it on with more confidence and success, than any other individual on the American Continent. Mr. Pedder has taken the first lessons and understands the first rudiments, whereas Mr. Isnard has studied the business for years and is perfectly conversant with all the practical operations, as well as the chemical nature of the changes the manufacturer is compelled to pass through. By a little careful reviewing of the business from personal observation and acquiring a knowledge of the improvements in France, his services will give the public confidence in the work, and be of incalculable benefit to the Company.

Now a word to farmers and others who wish to see this immensely important work go on of furnishing themselves and the whole country with Sugar. It is proposed to establish a Manufactory in Northampton. To erect all the necessary buildings and machinery for crushing the Beets and manufacturing them into Sugar. Now, from whence is to come the raw material? The company do not propose at present to purchase much land, but they urge upon the farmers of the Connecticut Valley, each and every one of them, to raise one or more acres of the Sugar Beet. Perhaps in no possible way could they devote their soil to so productive a crop, when it is remembered that the Beet exhausts the land much less than any species of grain,—and then the pumice, after the juice is extracted, furnishes an immense amount of nutritious and valuable food for cattle. It seems to us this business is of twofold value to every community who engage in the enterprise. It furnishes a necessary article of domestic consumption, and produces from the same material, fodder in unlimited quantities.—Now the first article is a constant item of necessary expense, which nothing but money, or a good equivalent will buy; and secondly, it furnishes food in amount beyond any other crop, not cultivated exclusively as fodder. The soil does not deteriorate, but increases in value under this species of cultivation; and from the limited investigations which have been made, we feel sanguine of the happiest pecuniary result to the grower of the Sugar Beet.

The following gentlemen were appointed a Committee, and requested to co-operate in promoting the enterprise:

Edward Church,  
Sam. Whitmarsh,  
Wm. Clark, Jr.  
Thomas Shepherd,  
John Rogers,  
Samuel Wells, Jr.  
Sam'l. L. Hinckley  
Henry G. Bowers,  
Rowell Hubbard,  
Oliver Warner,  
H. O. Aphorp,  
Hiram Ferry,  
John Frink,  
J. H. Flint,  
George Cook,

Azariah Clapp,  
John Wright,  
Elisha Graves,  
Isaac C. Bates,  
J. A. Strong,  
Jonathan Strong,  
H. K. Starkweather,  
Munroe Clapp,  
Elisha Strong,  
Theodore Clapp,  
Chester Clark,  
Theodore Sheldon,  
John Philips,  
Benj. Barrett,  
Nathan Stairs,

C. Delano,  
Christopher Clarke,  
Geo. Shepherd,  
Daniel Stebbins,  
Leander Moody,  
Asahael Lyman,  
Hervey Smith,  
David Hunt,  
Chauncey Clark,  
Sylvester Judd,  
John Clarke,

C. P. Huntington,  
Solomon Warner,  
Samuel Parsona,  
Thomas Pomeroy,  
Luther C. Clark,  
Samuel Williams,  
Cecil Dwight,  
Joseph Warner,  
W. W. Thompson,  
Christopher Wright,  
Henry Shepherd,

#### ASHES AS MANURE FOR GRASS LANDS.

There is scarcely any part of the country, where leached ashes cannot be obtained in greater or less quantity; and in the vicinity of asheries, abundance may generally be had with no other expense than drawing. If the following remarks by Count Chapel are applicable to soils of whatever materials they may be composed, a knowledge of this property of leached ashes, would in many instances be of very great value. At all events, the experiment is easily performed on a moderate scale.

"The ashes, produced by combustion of wood in our common domestic fires, give rise to some very remarkable results. Without being leached, these ashes are much too active; but after having been deprived, by the action of water, of nearly all their salts, and employed in this state, under the name of *buck ashes*, they still produce great effect.

"The action of the buck ashes is most powerful upon moist lands and meadows, in which they not only facilitate the growth of useful plants, but if employed constantly for several years, they will free the soil from weeds. By the use of them, land constantly drenched with water may be freed from rushes, and prepared for yielding clover and other plants of good kind."

It has been frequently supposed that ashes applied to wet heavy soils is injurious. This is probably owing to the application being too uneven, and in too large quantities, and to the want of mixing them intimately with the soil. Chaput says, "Wood ashes possess the double property of amending a wet and clayey soil by dividing and drying it, and of promoting vegetation by the salts they contain."

It is well known, that the evenly spread and intimately intermixed layer of ashes which soil receive by burning the turf, produces extraordinary effects upon grass lands.—*Genesee Farmer*.

#### WHITE TURKIES.

I find but few persons are acquainted with this beautiful species of Turkey; and thought a short description of them would be useful.

They are about as large as the black Turkey common amongst us, and like them in every other respect, except the feathers being all of a clear white color; a beautiful object on our green lawns; the white down and small feathers are occasionally used for ornamental purposes.

If early application is made to the subscriber, near Baltimore, he can supply a few pairs of said Turkeys, and the large Westphalian Geese at five dollars a pair. If to be shipped to a distance, a suitable coop and feed will be furnished for fifty cents additional.

ROBERT SINCLAIR,  
Clairmont Nursery.

Dec. 6th, 1836

## BALTIMORE PRODUCE MARKET.

These Prices are carefully collected on SUNDAY

	PER	SEPM	TO
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs.	7 50	8 00
CORN, yellow,.....	bushel.		
"    white,.....	"	81	83
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	184	90
Louisiana 20&21-Alabama	"	18	21
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 62	1 74
FLOUR MEAL—Best wh. wh't fam	barrel.	12 50	13 00
Do. do. baker's,.....	"		
Do. do. Superfine, ex.	"	10 50	10 75
Superflow. st. in good do'd	"	10 50	
"    wagon price,.....	"	10 25	
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"		10 50
Rye,.....	"	7 00	7 50
Kiln-dried Meal, in tibia.	hhd.		21 00
do. in bbls.	bbl.		4 62
GRASS SEEDS, red Clover,.....	bushel.	1 00	1 25
Timothy (bards of the north)	"	3 25	3 75
Orchard,.....	"		2 75
Tall meadow Oat,.....	"		2 75
Hard, or red top,.....	"		1 25
HAY, in bulk,.....	ton.		20 00
HENS, country, dew rotted,.....	pound.	6	7
"    water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 25	8 50
Slaughtered,.....	"		
HUES—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LENS,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	45	46
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 25	
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.		125
Susquehanna,.....	"		
Tobacco, crop, common,.....	100 lbs	3 50	4 50
"    brown and red,.....	"	4 60	0 00
"    fine red,.....	"	7 00	7 90
"    wrappery, suitable	"		
for segars,.....	"	5 00	10 00
"    yellow and red,.....	"	6 00	8 00
"    good yellow,.....	"	8 00	12 90
"    fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	4 00	5 00
"    ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.		2 25
Red, best,.....	"	2 05	2 10
inferior,.....	"	1 40	2 00
WHEAT, 1st pf. in bbls.....	gallon.	42	42 1/2
"    in hhd.,.....	"	39 1/2	
"    wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	
To Wheeling,.....	"	2 00	
Wool, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 to 50	28 30
Three fourths Merino,.....	"	42 to 45	26 28
One half do,.....	"	38 to 42	24 26
Common & one fourth Meri.	"	35 to 38	22 24
Pulled,.....	"	32 to 40	20 22

Howard st. Flour, sales limited, receipts vary light.

## PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Ellis Plummer, Chestertown, Md. no 15 24

## BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,.....	"		15
Middlings,.....	"		15
Assorted, country,.....	"		14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 94	2 00
CHOP RYE,.....	"		2 25
Eggs,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,.....	barrel.		
No. 2,.....	"		
Herrings, salted, No. 1,.....	"	3 50	
Mackerel, No. 1,.....No. 2	"	9 50	10 50
No. 3,.....	"		6 75
Cod, salted,.....	cwt.		
LARD,.....	pound.	16	17

## BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....	pat
Branch at Baltimore,.....	Farmers Bank of Virginia 1
Other branches,.....	Bank of Virginia,.....do
MARYLAND.	Branch at Fredericksburg do
Banks in Baltimore,.....	Petersburg,.....do
Hagerstown,.....	Norfolk,.....do
Frederick,.....	Winchester,.....do
Westminster,.....	Lynchburg,.....do
Farmers' Bank of Mary'd, do	Danville,.....do
Do. payable at Easton,.....	Bank of the Valley,.....do
Salisbury,..... 5 per ct. dis.	Branch at Romney,.... 1
Cumberland,.....	Do. Charlestown, do
Millington,.....	Do. Leesburg,.....do
DISTRICT.	Wheeling Banks,.... 2a2 1/2
Washington,.....	Ohio Banks, generally 3a3 1/2
Georgetown, } Banks, 1.	New Jersey Banks gen. 1 1/2a 2
Alexandria, }	New York City,.....1a
PENNSYLVANIA.	New York State,.... 2 1/2a 3
Philadelphia,.....	Massachusetts,.... 2a2 1/2
Chambersburg,.....	Connecticut,..... 2a2 1/2
Gettysburg,.....	New Hampshire,.... 2a2 1/2
Pittsburg,.....	Maine,..... 2a2 1/2
York,.....	Rhode Island,.... 2a2 1/2
Other Pennsylvania Bks. 1 1/2a 2	North Carolina,.... 3 1/2a 4
Delaware (under \$5)..... 3a4	South Carolina,.... 3 1/2a 4
Do. (over 5)..... 3a4	Georgia,..... 3 1/2a 4
Michigan Banks,..... 6a	New Orleans,..... 6
Canadian do,..... 6a	

## NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved Jacks, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 134 hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$92, and it costs about \$1 to pack and ship it. Address

I. I. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth st. Philadelphia. Philadelphia, Oct. 13th, 1836. oc 25

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

## THE SILK MANUAL.

JUST published and for sale by Sinclair & Norris and Robt. Sinclair, Jr., at the Maryland Agricultural Depository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them; and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

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